

Homework 40 Form A

Use Algebraic Explanations to Provide an Argument

Name: _____

Period: ____ Date: _____

Failure to show all work and write in complete sentences will result in LaSalle!

1) Complete the logical argument by giving a reason for each step.

$$\begin{aligned} 8x - 5 &= 2x - 15 \\ 10x - 5 &= -15 \\ 10x &= -10 \\ x &= -1 \end{aligned}$$

Given

a. _____

b. _____

c. _____

a. _____

b. _____

c. _____

2) Solve the equation. Write a reason for each step.

$$-12x = 28 - 16x$$

(format like this)

Equation	Reason:
$-12x = 28 - 16x$ $+16x \quad +16x$	Given

3) Solve the equation. Write a reason for each step.

$$7(x - 11) = 12x - 122$$

Equation	Reason

4) Solve for r. Write a reason for each step.

$$S = 4(2r + 5)$$

Equation	Reason

5) Solve for r. Write a reason for each step.

$$s = 7r - 33$$

Equation	Reason

6) Solve for r. Write a reason for each step.

$$s = 8(2r - 5)$$

Equation	Reason

1. The circumference of a certain circle is 10π inches. What is the area of that circle, in terms of π ?

2. Factor $x^2 + 2x - 15$

3. What is the sum of the solutions to the quadratic equation $9x^2 - 64 = 0$

4. $X = \{-5, 3\}$ is the solution set for what quadratic equation?

5. Simplify

$$\frac{125(x^3y^5)^2}{(5x^2y^5)^3}$$

6. Last year, Naomi's garden was 5 foot by 8 foot rectangular plot. He wants to produce more food this year, so she plans to triple the area of her garden. According to Naomi's plan, what will be area of her new garden?

7. The figure below is a hexagon, and ABCD is a rectangle that is contained in that hexagon. All measurements on the figure below are in centimeters. What is the area of the entire hexagon?

8. In the figure below, all angles are right angles. Find the area of the shaded region.

